From Field Data to Simulation

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Agenda

- Schlumberger Carbon Services
- Anatomy of a Sequestration Site
- Types of Measurements
- Simulation

Schlumberger Today

- People:
  - ~108,000
  - 140 Nationalities
  - Working in over 80 countries

- Services:
  - Reservoir characterization
  - Reservoir production
  - Drilling & Measurements
  - Integrated Project Management

- 2010 Financials:
  - $27.45 billion revenue
  - > $1 billion on Research & Product Development
From Field Data………..

- Cores
- Seismic
- Well Logs

Coring
Seismic Survey

1927
The “first log”
Formation Imaging
Ultrasonic pulse-echo Logging, just like the doctor’s office.
--Lower resolution

Resistivity Image Logging
--Highest resolution.
--Forced micro current into the formation.
--192 sensors
--every 1/10th inch

Borehole Imaging
Bedding features are correlated into dip.
Flat vs. vertical.
Bedding features, fractures, vugs,…

Interpretation Logs
Image Cross Sections

Vertical Hole

Horizontal Hole

MDT - Modular Dynamics Tester
Fluid Analysers

Pump Out Module

LFA - Live Fluid Analyser

Water
Oil
Gas
To Simulation

- Geologic
- Dynamic Injection
- Geomechanical

THANK YOU!

Questions?

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